MATERIAL SAFETY DATA SHEET

1. Chemical Product and Company Identification
Chemical product identification
Product name: KiloVault 3600 HLX+ (LiFePO4 Battery)
Manufacturer: KiloVault LLC
Address: 330 Codman Hill Road, Boxborough, MA, 01719
Tel: +1 (888) 218-5924
Fax: +1 (978) 562-5854

2. Hazards Identification
Not dangerous with normal use. Do not dismantle, open or shred the battery. Exposure to the ingredients contained within or their ingredients products could be harmful.
Primary routes of exposure: These chemicals are contained in a sealed can.
Risk of exposure occurs only if the battery is mechanically, thermally or electrically abused.
If this occurs, exposure to the electrolyte solution contained within can occur by Inhalation, Ingestion, eye contact and skin contact.
Potential Health Effects:
Inhalation: Inhalation of materials from a sealed battery is not an expected route of exposure.
Vapors or mists from a ruptured battery may cause respiratory irritation.
Swallow: Swallowing of materials from a sealed battery is not an expected route of exposure.
Swallowing the contents of an open battery can cause serious chemical burns of mouth, esophagus, and gastrointestinal tract.
Skin: Contact between the battery and skin will not cause any harm. Skin contact with contents of an open battery can cause severe irritation or burns to the skin.
Eye: Contact between the battery and the eye will not cause any harm. Eye contact with contents of an open battery can cause severe irritation or burns to the eye.
Other hazards: No information available.

3. Composition, Information on Ingredients
Rechargeable Lithium-ion Battery is a mixture.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Composition (in % by weight)</th>
<th>CAS Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum (Al)</td>
<td>13-17</td>
<td>7429-90-5</td>
</tr>
<tr>
<td>Copper (Cu)</td>
<td>9-13</td>
<td>7440-50-8</td>
</tr>
<tr>
<td>LiFePO4</td>
<td>32-38</td>
<td>15365-14-7</td>
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<td>Graphite(C)</td>
<td>16-20</td>
<td>7782-42-5</td>
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<tr>
<td>lithium</td>
<td>2.5-4.5</td>
<td>21324-40-3</td>
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<tr>
<td>Organic solvents</td>
<td>17-23</td>
<td>N/A</td>
</tr>
</tbody>
</table>

4. First Aid Measures
Description of first aid measures.
General information: No special measures required.
After inhalation
Remove the victim to a fresh area. Administer artificial respiration if breathing is difficult. Seek medical attention.
After swallowing
Do not induce vomiting. Get medical attention.

After skin contact
Remove contaminated clothing and shoes. Immediately wash with water and soap and rinse thoroughly.
Wash clothing and shoes before reuse. If irritation occurs, get medical attention.

After eye contact
Flush eyes with plenty of water for several minutes while holding eyelids open. Get medical attention if irritation persists.

5. Fire Fighting Measures
Flash Point: N/A.

Suitable extinguishing agents
Use extinguishing agents suitable for local conditions and the surrounding environment. Such as dry powder or CO2.

Special hazards arising from the substance or mixture
Battery may burst and release hazardous decomposition products when exposed to a fire situation.

Advice for firefighters
Protective equipment: Wear self-contained breathing apparatus. Wear a fully protective impervious suit.

6. Accidental Release Measures
Steps to be taken in case material is released or spilled
If the battery material is released, remove personnel from the area until fumes dissipate. Provide maximum ventilation to clear out hazardous gases. Sweep up using a method that does not generate dust. Collect as much of the spilled material as possible, place the spilled material into a suitable disposal container. The preferred response is to leave the area and allow the batteries to cool and vapors to dissipate. Avoid skin and eye contact or inhalation of vapors.

Waste Disposal Method
It is recommended to completely discharge the batteries, then hand in the abandoned batteries to related department unified, dispose of the batteries in accordance with approved local, state, and federal requirements. Consult the state environmental protection agency and/or federal EPA.

7. Handling and Storage
The batteries should not be opened, destroyed or incinerated, since they may leak or rupture and release into the environment the ingredients that they contain in the hermetically sealed container. Do not short circuit terminals, over-charge the battery, over-discharge the battery, or throw it into fire. Do not crush or puncture the battery, or immerse in liquids.

Precautions to be taken in handling and storing
Avoid mechanical or electrical abuse. Storage preferably in cool, dry and ventilated area, which is subject to little temperature change. Storage at high temperatures should be avoided. Do not place the battery near heating equipment, nor expose it to direct sunlight for long periods.

Other Precautions
Batteries may explode or cause burns, if disassembled, crushed or exposed to fire or high temperatures. Do not short or install it with incorrect polarity.

8. Exposure Controls and Personal Protection
Engineering Controls
Use local exhaust ventilation or other engineering controls to control sources of dust, mist, fumes and vapor. Keep away from heat and open flame. Store in a cool, dry place.

Personal Protective Equipment
Respiratory Protection: Not necessary under normal conditions.
Skin and Body Protection: Not necessary under normal conditions, Wear neoprene or nitrile rubber gloves if handling an open or leaking battery.

Hand Protection: Wear neoprene or nitrile rubber material gloves if handling an open or leaking battery.

Eye Protection: Not necessary under normal conditions, Wear safety glasses if handling an open or leaking battery.

Other Protective Equipment
Have a safety shower and eyewash fountain readily available in the immediate work area.

Hygiene Measures
Do not eat, drink, or smoke in the work area. Maintain good housekeeping.

9. Physical and Chemical Properties
Nominal Voltage: 12.8V.
Rated Capacity: 300Ah.
Appearance Characters: Quadrate, odorless, solid battery.

10. Stability and Reactivity
Chemical stability: The product is stable under normal conditions.
Conditions to Avoid
Flames, sparks, and other sources of ignition, incompatible materials.
Incompatibilities
Oxidizing agents, acid, base.
Hazardous Combustible Products
Carbon monoxide, carbon dioxide, lithium oxide fumes.
Possibility of hazardous reactions: Data not available.

11. Toxicological Information
Inhalation, skin contact and eye contact are possible when the battery is opened.
Exposure to internal contents, the corrosive fumes will be very irritating to skin, eyes and mucous membranes.
Overexposure can cause symptoms of non-fibrotic lung injury and membrane irritation.

12. Ecological Information
When properly used or disposed the battery does not present an environmental hazard. When disposed, keep away from water, rain and snow.

13. Disposal Considerations
If batteries are still fully charged or only partially discharged, they can be considered a reactive hazardous waste because of a significant amount of uncreated, or unconsumed lithium remaining in the spent battery. The batteries must be neutralized through an approved secondary treatment facility prior to disposal as a hazardous waste.
Recycling the battery can be done in an authorized facility, through a licensed waste carrier.

14. Transport Information
Batteries containing these cells should be transported as Class 9 hazardous material. UN-Number: 3480.
Separate Lithium-ion batteries when shipping to prevent short-circuiting. They should be packed in strong packaging for support during transport.
Take in a cargo of them without falling, dropping, and breakage. Prevent the collapse of cargo piles and wetting by rain.
Transport Fashion: By air, by sea, by railway, by road.
15. Regulatory Information
Safety, health and environmental regulations/legislation specific for the substance or mixture.

<table>
<thead>
<tr>
<th>Composition</th>
<th>CAS#</th>
<th>IECSC</th>
<th>DSL</th>
<th>TSCA</th>
<th>EC#</th>
<th>EINECS</th>
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<td>copper</td>
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<td>231-159-6</td>
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</table>

16. Additional Information
The above information is based on the data of which we are aware and is believed to be correct as of the data hereof. Since this information may be applied under conditions beyond our control and with which may be unfamiliar and since data made available subsequent to the data hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.